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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,377	02/07/2006	Simon Leonard Rumer	1033963-000020	6743

21839 7590 06/19/2008  
BUCHANAN, INGERSOLL & ROONEY PC  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER
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KIM, PAUL D

ART UNIT	PAPER NUMBER
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3729

NOTIFICATION DATE	DELIVERY MODE
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06/19/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,377	<b>Applicant(s)</b> RUMER, SIMON LEONARD	
	<b>Examiner</b> Paul D. Kim	<b>Art Unit</b> 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/7/06, 10/3/07</u>   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is a response to the restriction requirement filed on 4/14/2008.

#### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, Species A, claims 1-6 and 10-15, in the reply filed on 4/14/2008 is acknowledged.
2. Claims 7-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/14/2008.

#### ***Information Disclosure Statement***

3. The information disclosure statement filed 7/22/2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because there is only an IDS letter. There is no PTO-1449 filed. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Drawings***

4. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --A METHOD OF ASSEMBLING A PACKAGED HIGH FREQUENCY CIRCUIT MODULE--.

### ***Claim Objections***

6. Claims 1-6 and 10-15 are objected to because of the following informalities:

Re. Claim 1: Before the phrase "elongated stub walls" as recited in line 7, inserts a phrase --one or more--.

Before the phrase "stub walls" as recited in line 8, inserts a phrase --one or more--.

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Before the phrase “stub walls” as recited in line 11, inserts a phrase --one or more--.

Re. Claims 2-6 and 10-15: The phrase “A method” recited in line 1 appears to be --The method--.

Re. Claim 2: Before the phrase “stub walls extend” as recited in line 1, inserts a phrase --one or more--.

Re. Claim 3: Before the phrase “one or more stub walls” as recited in line 2, inserts a phrase --the--.

Before the phrase “internal surface” as recited in line 2, change the phrase “the” to --an--.

Re. Claim 4: Before the phrase “stub walls” as recited in line 1, inserts a phrase --one or more--.

Re. Claim 10: Before the phrase “one or more stub walls” as recited in line 1, inserts a phrase --the--.

Before the phrase “internal surface” as recited in line 2, change the phrase “the” to --an--.

Re. Claim 11: Before the phrase “stub walls” as recited in line 1, inserts a phrase --one or more--.

Re. Claim 12: Before the phrase “stub walls” as recited in line 1, inserts a phrase --one or more--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-6 and 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re. Claim 1: The phrase “processing the surface of the substrate until the planar surfaces of the elongate stub walls are uniform and parallel” as recited in lines 6 and 7 renders the claim vague and indefinite. Since the one or more elongate stub walls are projected from the planar surface of the substrate as recited in lines 3 and 4, it is unclear as to how the planar surfaces of the elongate stub walls can be formed in uniform and parallel by processing the surface of the substrate.

Re. Claims 3 and 10: The phrase “one or more stub walls project from the internal surface of the substrate” as recited in lines 1 and 2 renders the claim vague and indefinite. Since the one or more elongate stub walls are projected from the planar surface of the substrate as recited in lines 3 and 4, it is unclear as to how the planar surfaces of the elongate stub walls can be formed from the internal surface of the substrate.

Re. claims 4, 11 and 12: The phrase “for such a substrate” as recited in lines 3 and 4 of claim 4 and line 3 in claims 11 and 12 renders vague and indefinite. It is unclear as to what the “for such a substrate” is meant. Clarification is required.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-6 and 10-15 are, as best understood in view of the rejections under 112 second paragraphs, rejected under 35 U.S.C. 102(b) as being anticipated by Applicant Admitted Prior Art (APA hereinafter).

APA teaches a process of making a high frequency circuit modules comprising steps of: providing a ceramic substrate (2) having one or more elongate stub walls (6, 7) projecting from a planar surface thereof; firing the ceramic substrate; processing the surface of the substrate to form the planar surface of the substrate; applying a conductive adhesive (3) to the surfaces of the one or more stub walls; placing a housing lid (4) over the substrate, the lid having one or more members (5) projecting from a planar surface thereof so that the members align with the one or more stub walls of the substrate to form a composite structure as shown in Fig. 1 (see also line 8 of page 3 to line 28 of page 4 of the specification).

As per claim 2 the one or more stub walls extend, at least partially, around the periphery of the planar surface of the substrate as shown in Fig. 1.

As per claims 3 and 10 the one or more stub walls project from the surface of the substrate.

As per claims 4, 11 and 12 the projection of the one or more stub walls from the planar surface of the substrate is, inherently, provided proportionally to the predetermined surface distortion values of the substrate in order to avoid cracking and stressing of the substrate.

As per claims 5 and 13-15 the processing the surface comprises one or more grinding the surface of the substrate.

As per claim 6 while the composite structure is pressured (by a weight of the lid), the conductive adhesive is cured.

11. Claims 1-3 and 6 are, as best understood in view of the rejections under 112 second paragraphs, rejected under 35 U.S.C. 102(b) as being anticipated by Kasai et al. (US PAT. 6,924,429).

Kasai et al. teach a process of making a high frequency circuit modules comprising steps of: providing a ceramic substrate (2) having one or more elongate stub walls (both ends) projecting from a planar surface thereof as shown in Fig. 4; processing the surface of the substrate; applying a conductive adhesive (25, as shown in Fig. 4) to the surfaces of the one or more stub walls; placing a housing lid (3) over the substrate, the lid having one or more members (both ends) projecting from a planar surface thereof so that the members align with the one or more stub walls of the substrate to form a composite structure as shown in Fig. 4 (see also col. 12, lines 20-56).



As per claim 2 the one or more stub walls extend, at least partially, around the periphery of the planar surface of the substrate as shown in Fig. 4.

As per claims 3 and 10 the one or more stub walls project from the surface of the substrate.

As per claim 6 while the composite structure is pressured (by a weight of the lid), the conductive adhesive is cured.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-3, 5, 6, 10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over McHerron et al. (US PAT. 6,046,074) in view of Kasai et al.

McHerron et al. teach a process of making a high frequency circuit modules comprising steps of: providing a ceramic substrate (14) having one or more elongate stub walls (14) projecting from a planar surface thereof as shown in Figs. 1 and 2; processing the surface of the substrate to form the planar surface of the substrate; applying a conductive adhesive (52, as shown in Fig. 5) to the surfaces of the one or more stub walls; placing a housing lid (12) over the substrate, the lid having one or more members (28, as shown in Fig. 2) projecting from a planar surface thereof so that

the members align with the one or more stub walls of the substrate to form a composite structure as shown in Fig. 1 (see also col. 4, line 5 to col. 5, line 39).

However, McHerron et al. fail to teach firing the ceramic substrate. Kasai et al. teach a process of manufacturing an electrical device having a ceramic substrate formed by baking a composite material in order to produce a desired shape of the substrate (see also col. 12, lines 24-26). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a process of fabricating a ceramic substrate of McHerron et al. by baking a composite material as taught by Kasai et al. in order to produce a desired shape of the substrate.

As per claim 2 the one or more stub walls of McHerron et al. extend, at least partially, around the periphery of the planar surface of the substrate as shown in Fig. 1.

As per claims 3 and 10 the one or more stub walls of McHerron et al. project from the surface of the substrate.

As per claims 5 and 13-15 the processing the surface of McHerron et al. comprises one or more grinding the surface of the substrate.

As per claim 6 while the composite structure of McHerron et al. is pressured (by a weight of the lid), the conductive adhesive is cured.

### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D. Kim whose telephone number is 571-272-4565.

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The examiner can normally be reached on Monday-Thursday between 6:00 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul D Kim/  
Primary Examiner, Art Unit 3729